

# HSC Software Design & Development: - Assessment #1-Black Jack Game

**Task Name:** Black Jack Game

**Time allowed for Task:** 7 Weeks

**Weighting:** 10%

**Marked out of:** 100

**Outcomes Assessed:** H1.2, H4.1, H4.3, H5.1, H5.2, H5.3, H6.2

## DETAILS ABOUT TASK:

Your task is to build a version of the game of Blackjack. You will need to include a dealer, a human player and at least three computer players. The rules of Blackjack used will be the standard rules with the exception of doubling, which you may include as an option.

This task is to be thoroughly planned, and the majority of the task will be documentation. For the development portion, Object Oriented Programming (OOP) practices need to be followed. These will be explained to you as part of the project.

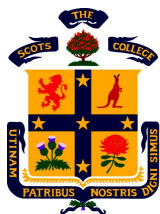
You will also be required to participate on the ScotsICT forum regularly, posting items and commenting on topics. You are encouraged to make these comments across multiple-year groups and topic areas.



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## MARKING GUIDELINES

Outcome	Component	Criteria	Mark
<b>Defining the Problem</b>			
H4.	Problem Definition	A thorough description of the problem to be solved.	4
	Needs and Objectives	A discussion of the needs and objectives and boundaries of the application	6
	Feasibility Report	An evaluation of the solution's feasibility (Operational, Scheduling, Financial and Technical)	5
<b>Planning the Solution</b>			
H5.	Data Flow Diagram	A data flow diagram showing how data flows through the system, properly formatted and using correct symbol library	5
	System flowchart of rules for the dealer	A properly formatted system flowchart that accurately reflects the dealer algorithm in the application	5
<b>Building the Solution</b>			
H4.	Modular design of application using OOP methodologies	Development of the application is modular – allowing for future development and easier testing.	10
H5.	Mandatory Components	Working components (1-5 for each) <ul style="list-style-type: none"> <li>Shuffles decks and plays through the cards in the deck</li> <li>Human player can play</li> <li>Dealer follows rules</li> <li>GUI layout of the application and UX</li> </ul>	5 5 5 5
	AI Component	AI for the game <ul style="list-style-type: none"> <li>Computer follows simple rules</li> <li>Computer players can be customised</li> <li>Dealer can be customised</li> </ul>	5 5 5
<b>Testing/Modifying the Solution</b>			
H5.	Bug Free	Minus 1 mark for each bug found during normal usage	5
	Build Log	A build log highlighting when features are added, the date of addition, problems encountered and their solution.	5



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Implementing the Solution			
H1.	Evaluation of Implementation Methods	A report analysing different implementation methodologies and recommending one for this solution.	5
Theory			
H6.	Forum Contributions	At least two topics for each week – must be well written and correspond to the task at hand. Three comments on other topics per week – must be relevant, constructive and pertain to the topic.	10
	Home learning tasks	Tasks are completed on time and to a consistently high standard	5